

AMENDMENTS TO THE CLAIMS

Claim 1 (Previously presented): An isolated polypeptide that ameliorates a symptom of atherosclerosis or other pathology associated with an inflammatory response, said polypeptide comprising an amphipathic helix having charged residues on the polar face and possessing a wide non-polar face, wherein said polypeptide ranges in length from 10 amino acids to 40 amino acids, and wherein said polypeptide comprises the amino acid sequence DQYYLRVTVA, (SEQ ID NO:18).

Claims 2-7 (Canceled).

Claim 8 (Previously presented): The polypeptide of claim 1, wherein said polypeptide is a concatamer of two or more of said amino acid sequences.

Claim 9 (Previously presented): The polypeptide of claim 1, wherein said polypeptide further comprises a protecting group.

Claim 10 (Previously presented): The polypeptide of claim 1, wherein said polypeptide further comprises a protecting group coupled to the amino or carboxyl terminus.

Claim 11 (Previously presented): The polypeptide of claim 9, wherein said protecting group is a protecting group selected from the group consisting of amide, 3 to 20 carbon alkyl groups, Fmoc, 9-fluoreneacetyl group, 1-fluorene-carboxylic group, 9-fluorene-carboxylic group, 9-fluorenone-1-carboxylic group, Xanthyl (Xan), Trityl (Trt), 4-methyltrityl (Mtt), 4-methoxytrityl (Mmt), 4-methoxy-2,3,6-trimethyl-benzenesulphonyl (Mtr), Mesitylene-2-sulphonyl (Mts), 4,4-dimethoxybenzhydryl (Mbh), Tosyl (Tos), 2,2,5,7,8-pentamethyl chroman-6-sulphonyl (Pmc), 4-methylbenzyl (MeBzl), 4-methoxybenzyl (MeOBzl), Benzyloxy (BzIO), Benzyl (Bzl), Benzoyl (Bz), 3-nitro-2-pyridinesulphenyl (Npys), 1-(4,4-dimethyl-2,6-dioxocyclohexylidene)ethyl (Dde), 2,6-dichlorobenzyl (2,6-DiCl-Bzl), 2-chlorobenzoyloxycarbonyl (2-Cl-Z), 2-bromobenzoyloxycarbonyl (2-Br-Z), Benzyloxymethyl (Bom), t-butoxycarbonyl (Boc), cyclohexyloxy (CHxO), t-butoxymethyl (Bum), t-butoxy (tBuO), t-Butyl (tBu), Acetyl (Ac), a carbobenzoxy group, a propyl group, a butyl group, a pentyl group, a hexyl group, and Trifluoroacetyl (TFA).

Claim 12 (Previously presented): The polypeptide of claim 9, wherein said polypeptide comprises a protecting group coupled to the amino terminus and said amino terminal protecting group is a protecting group selected from the group consisting of a benzoyl group, an acetyl, a propionyl, a carbobenzoxy, a propyl, a butyl, a pentyl, a hexyl, and a 3 to 20 carbon alkyl.

Claim 13 (Previously presented): The polypeptide of claim 9, wherein said polypeptide comprises a protecting group coupled to the carboxyl terminus and said carboxyl terminal protecting group is an amide.

Claim 14 (Previously presented): The polypeptide of claim 9, wherein said polypeptide further comprises:

a first protecting group coupled to the amino terminus wherein said protecting group is a protecting group selected from the group consisting of a benzoyl group, an acetyl, a propionyl, a carbobenzoxy, a propyl, a butyl, a pentyl, a hexyl, and a 3 to 20 carbon alkyl; and

a second protecting group coupled to the carboxyl terminus and said carboxyl terminal protecting group is an amide.

Claim 15 (Previously presented): The polypeptide of claim 1, wherein said polypeptide comprises a first protecting group coupled to the amino terminus and a second protecting group coupled to the carboxyl terminus.

Claim 16 (Previously presented): The polypeptide of claim 1, wherein said polypeptide comprises an Ac group on the amino terminus.

Claim 17 (Previously presented): The polypeptide of claim 1, wherein said polypeptide comprises an -NH₂ on the carboxyl terminus.

Claim 18 (Previously presented): The polypeptide of claim 1, wherein said polypeptide comprises an Ac group on the amino terminus and an -NH₂ on the carboxyl terminus.

Claims 19-21 (Canceled).

Claim 22 (Currently amended): The polypeptide of claim 1, wherein said polypeptide comprises a "D" amino acid.

Claim 23 (Currently amended): The polypeptide of claim 1, wherein said polypeptide comprises a plurality of "D" amino acids.

Claim 24 (Previously presented): The polypeptide of claim 1, wherein all enantiomeric amino acids comprising said polypeptide are "D" amino acids.

Claim 25 (Previously presented): The polypeptide of claim 1, wherein said polypeptide is mixed with a pharmacologically acceptable excipient.

Claim 26 (Currently amended): The polypeptide of claim 1, wherein said polypeptide is mixed with a pharmacologically acceptable excipient suitable for oral administration to a mammal.

Claims 27-28 (Canceled).

Claim 29 (Original): The polypeptide of claim 1, wherein said polypeptide is coupled to a phospholipid.

Claim 30 (Original): The polypeptide of claim 29, wherein said polypeptide is covalently coupled to a phospholipid.

Claim 31 (Original): The polypeptide of claim 29, wherein said polypeptide is covalently coupled to a phospholipid comprising lysophosphatidyl choline.

Claim 32 (Previously presented): The polypeptide of claim 29, wherein said polypeptide is covalently coupled to a phospholipid comprising a fatty acid selected from the group consisting of propionoyl, butanoyl, pentanoyl, caproyl, heptanoyl, capryloyl, nonanoyl, capryl, undecanoyl, lauroyl, tridecanoyl, myristoyl, pentadecanoyl, palmitoyl, heptadecanoyl, stearoyl, nonadecanoyl, arachidoyl, henicosanoyl, behenoyl, triscanoyl, lignoceroyl, myristoleoyl (9-cis), myristelaidoyl (9-trans), palmitoleoyl (9-cis), and palmitelaidoyl (9-trans).

Claim 33 (Original): The polypeptide of claim 32, wherein said polypeptide is covalently coupled to the sn-1 or sn-2 position of said phospholipid.

Claim 34 (Currently amended): A composition suitable for oral administration that ameliorates a symptom of atherosclerosis, wherein said composition comprises a peptide comprising an amphipathic helix having charged residues on the polar face of the peptide and possessing a wide non-polar face, wherein said peptide comprises a D amino acid, said polypeptide ranges in length from 10 amino acids to 40 amino acids, said polypeptide comprises the amino acid sequence DQYYLRVTTVA, (SEQ ID NO:18), and said peptide [is] comprises a first protecting group coupled to the amino terminus and a second protecting group coupled to the carboxyl terminus.

Claim 35-40 (Canceled).

Claim 41 (Previously presented): The composition of claim 34, wherein said first protecting group and said second protecting group are independently selected from the group consisting of amide, 3 to 20 carbon alkyl groups, Fmoc, 9-fluoreneacetyl group, 1-fluorene-carboxylic group, 9-fluorene-carboxylic group, 9-fluorenone-1-carboxylic group, Xanthyl (Xan), Trityl (Trt), 4-methyltrityl (Mtt), 4-methoxytrityl (Mmt), 4-methoxy-2,3,6-trimethyl-benzenesulphonyl (Mtr), Mesitylene-2-sulphonyl (Mts), 4,4-dimethoxybenzhydryl (Mbh), Tosyl (Tos), 2,2,5,7,8-pentamethyl chroman-6-sulphonyl (Pmc), 4-methylbenzyl (MeBzl), 4-methoxybenzyl (MeOBzl), Benzyloxy (BzlO), Benzyl (Bzl), Benzoyl (Bz), 3-nitro-2-pyridinesulphenyl (Npys), 1-(4,4-dimethyl-2,6-dioxocyclohexylidene)ethyl (Dde), 2,6-dichlorobenzyl (2,6-DiCl-Bzl), 2-chlorobenzoyloxycarbonyl (2-Cl-Z), 2-bromobenzoyloxycarbonyl (2-Br-Z), Benzyloxymethyl (Bom), t-butoxycarbonyl (Boc), cyclohexyloxy (cHxO), t-butoxymethyl (Bum), t-butoxy (tBuO), t-Butyl (tBu), Acetyl (Ac), a carbobenzoxy group, a propyl group, a butyl group, a pentyl group, a hexyl group, and Trifluoroacetyl (TFA).

Claim 42 (Previously presented): The composition of claim 34, wherein said first protecting group is an acetyl.

Claim 43 (Previously presented): The composition of claim 34, wherein said second protecting group is an amide.

Claim 44 (Previously presented): The composition of claim 34, wherein more than half of the enantiomeric amino acids comprising said peptide are D amino acids.

Claim 45 (Previously presented): The composition of claim 34, wherein all enantiomeric amino acids comprising said peptide are D amino acids.

Claim 46 (Previously presented): The composition of claim 34, wherein said composition further comprises a pharmaceutically acceptable excipient.

Claim 47 (Original): The composition of claim 46, wherein said excipient is an excipient suitable for oral administration.

Claim 48 (Original): The composition of claim 46, wherein said excipient is an excipient suitable for injection.

Claim 49 (Original): A pharmaceutical composition, said composition comprising a polypeptide of claim 1 in a pharmaceutically acceptable excipient.

Claim 50 (Previously presented): The composition of claim 49, wherein said composition is in the form of a unit dosage formulation.

Claim 51 (Previously presented): The composition of claim 34, wherein said peptide is coupled to a phospholipid.

Claim 52 (Previously presented): The composition of claim 51, wherein said peptide is covalently coupled to a phospholipid.

Claim 53 (Previously presented): The composition of claim 51, wherein said peptide is covalently coupled to a phospholipid comprising lysophosphatidyl choline.

Claim 54 (Previously presented): The composition of claim 51, wherein said peptide is covalently coupled to a phospholipid comprising a fatty acid selected from the group consisting of propionoyl, butanoyl, pentanoyl, caproyl, heptanoyl, capryloyl, nonanoyl, capryl, undecanoyl, lauroyl, tridecanoyl, myristoyl, pentadecanoyl, palmitoyl, heptadecanoyl, stearoyl, nonadecanoyl, arachidoyl,

henicicosanoyl, behenoyl, trucasanoyl, lignoceroyl, myristoleoyl (9-cis), myristelaidoyl (9-trans), palmitoleoyl (9-cis), and palmitelaidoyl (9-trans).

Claim 55 (Previously presented): A method of ameliorating a symptom of atherosclerosis in a mammal, said method comprising administering to said mammal a peptide or a concatamer of a peptide comprising an amphipathic helix having charged residues on the polar face of the helix and possessing a wide non-polar face on said helix, wherein said peptide ranges in length from 10 amino acids to 40 amino acids, and wherein said peptide comprises the amino acid sequence DQYYLRVTVA, (SEQ ID NO:18).

Claims 56-61 (Canceled).

Claim 62 (Previously presented): The method of claim 55, wherein said peptide is a concatamer of two or more of said amino acid sequences.

Claim 63 (Previously presented): The method of claim 55, wherein said peptide further comprises a protecting group.

Claim 64 (Previously presented): The method of claim 55, wherein said peptide further comprises a protecting group coupled to the amino or carboxyl terminus.

Claim 65 (Previously presented): The method of claim 63, wherein said protecting group is a protecting group selected from the group consisting of amide, 3 to 20 carbon alkyl groups, Fmoc, 9-fluoreneacetyl group, 1-fluorene-carboxylic group, 9-fluorene-carboxylic group, 9-fluorenone-1-carboxylic group, Xanthyl (Xan), Trityl (Trt), 4-methyltrityl (Mtt), 4-methoxytrityl (Mmt), 4-methoxy-2,3,6-trimethyl-benzenesulphonyl (Mtr), Mesitylene-2-sulphonyl (Mts), 4,4-dimethoxybenzhydryl (Mbh), Tosyl (Tos), 2,2,5,7,8-pentamethyl chroman-6-sulphonyl (Pmc), 4-methylbenzyl (MeBzl), 4-methoxybenzyl (MeOBzl), Benzyloxy (BzIO), Benzyl (Bzl), Benzoyl (Bz), 3-nitro-2-pyridinesulphenyl (Npys), 1-(4,4-dimethyl-2,6-dioxocyclohexylidene)ethyl (Dde), 2,6-dichlorobenzyl (2,6-DiCl-Bzl), 2-chlorobenzyloxycarbonyl (2-Cl-Z), 2-bromobenzyloxycarbonyl (2-Br-Z), Benzyloxymethyl (Bom), t-butoxycarbonyl (Boc), cyclohexyloxy (cHxO), t-butoxymethyl (Bum), t-

butoxy (tBuO), t-Butyl (tBu), Acetyl (Ac), a carbobenzoxy group, a propyl group, a butyl group, a pentyl group, a hexyl group, and Trifluoroacetyl (TFA).

Claim 66 (Currently amended): The method of claim 63, wherein said peptide comprises a protecting group coupled to the amino terminus terminal and said amino terminus terminal protecting group is a protecting group selected from the group consisting of a benzoyl group, an acetyl, a propionyl, a carbobenzoxy, a propyl, a butyl, a pentyl, a hexyl, and a 3 to 20 carbon alkyl.

Claim 67 (Previously presented): The method of claim 63, wherein said peptide comprises a protecting group coupled to the carboxyl terminus and said carboxyl terminal protecting group is an amide.

Claim 68 (Previously presented): The method of claim 63, wherein said peptide further comprises:
a first protecting group coupled to the amino terminus wherein said protecting group is a protecting group selected from the group consisting of a benzoyl group, an acetyl, a propionyl, a carbobenzoxy, a propyl, a butyl, a pentyl, a hexyl, and a 3 to 20 carbon alkyl; and
a second protecting group coupled to the carboxyl terminus and said carboxyl terminal protecting group is an amide.

Claim 69 (Previously presented): The method of claim 55, wherein said peptide comprises a first protecting group coupled to the amino terminus and a second protecting group coupled to the carboxyl terminus.

Claim 70 (Previously presented): The method of claim 55, wherein said peptide comprises an Ac group on the amino terminus.

Claim 71 (Previously presented): The method of claim 55, wherein said peptide comprises an -NH₂ on the carboxyl terminus.

Claim 72 (Currently amended): The method of claim 55,[,] wherein said peptide comprises an Ac group on the amino terminus and an -NH₂ on the carboxyl terminus.

Claims 73-75 (Canceled).

Claim 76 (Previously presented): The method of claim 55, wherein said peptide comprises a "D" amino acid.

Claim 77 (Previously presented): The method of claim 55, wherein said peptide comprises a plurality of "D" amino acids.

Claim 78 (Previously presented): The method of claim 55, wherein all enantiomeric amino acids comprising said peptide are "D" amino acids.

Claim 79 (Previously presented): The method of claim 55, wherein said peptide is coupled to a phospholipid.

Claim 80 (Previously presented): The method of claim 79, wherein said peptide is covalently coupled to a phospholipid.

Claim 81 (Previously presented): The method of claim 79, wherein said peptide is covalently coupled to a phospholipid comprising lysophosphatidyl choline.

Claim 82 (Previously presented): The method of claim 79, wherein said peptide is covalently coupled to a phospholipid comprising a fatty acid selected from the group consisting of propionoyl, butanoyl, pentanoyl, caproyl, heptanoyl, capryloyl, nonanoyl, capryl, undecanoyl, lauroyl, tridecanoyl, myristoyl, pentadecanoyl, palmitoyl, heptadecanoyl, stearoyl, nonadecanoyl, arachidoyl, henicicosanoyl, behenoyl, truncanoyl, lignoceroyl, myristoleoyl (9-cis), myristelaidoyl (9-trans), and palmitoleoyl (9-cis), palmitelaidoyl (9-trans).

Claim 83 (Previously presented): The method of claim 55, wherein said peptide is mixed with a pharmacologically acceptable excipient.

Claim 84 (Previously presented): The method of claim 55, wherein said peptide is mixed with a pharmacologically acceptable excipient suitable for oral administration to a mammal.

Claim 85 (Original): The method of claim 55, wherein said administering comprises orally administering said peptide.

Claim 86 (Original): The method of claim 55, wherein said mammal is a mammal diagnosed as having one or more symptoms of atherosclerosis.

Claim 87 (Previously presented): The method of claim 55, wherein said mammal is a mammal diagnosed as at risk for atherosclerosis.

Claim 88 (Original): The method of claim 55, wherein said mammal is a human.

Claim 89 (Original): The method of claim 55, wherein said mammal is non-human mammal.

Claim 90 (Currently amended): A method of ameliorating a symptom of a pathology characterized by an inflammatory response in a mammal, said method comprising administering to said mammal a peptide or a concatamer of a peptide comprising an amphipathic helix having charged residues on the polar face and possessing a wide non-polar face, wherein said ~~polypeptide-peptide~~ ranges in length from 10 amino acids to 40 amino acids, and wherein said ~~polypeptide-peptide~~ comprises the amino acid sequence DQYYLRVTVA, (SEQ ID NO:18).

Claims 91-96 (Canceled).

Claim 97 (Previously presented): The method of claim 90, wherein said mammal is a mammal diagnosed as having one or more symptoms of an inflammatory response.

Claim 98 (Previously presented): The method of claim 90, wherein said mammal is a mammal diagnosed as at risk for a pathology associated with an inflammatory response.

Claim 99 (Previously presented): The method of claim 90, wherein said mammal is a human.

Claim 100 (Previously presented): The method of claim 90, wherein said mammal is non-human mammal.

Claim 101 (Previously presented): A kit for ameliorating a symptom of atherosclerosis, said kit comprising a container containing a polypeptide of any one of claims 1, and 8-26.

Claim 102 (Previously presented): The kit of claim 101, wherein said polypeptide is combined with a pharmaceutically acceptable excipient.

Claim 103 (Previously presented): The kit of claim 101, wherein said polypeptide is combined with a pharmaceutically acceptable excipient in a unit dosage formulation.

Claim 104 (Original): The kit of claim 103, wherein said unit dosage formulation is for oral administration.

Claim 105 (Currently amended): The kit of claim 101, further comprising instructional materials teaching the use of said polypeptide for ameliorating one or more symptoms of atherosclerosis or of a pathology characterized by an inflammatory response.

Claim 106 (Currently amended): A method of mitigating or preventing a coronary complication associated with an acute phase response to an inflammation in a mammal, said method comprising administering to a mammal having said acute phase response, or at risk for said acute phase response, a polypeptide of any one of claims 1, ~~and~~ 8-26, and 116.

Claim 107 (Previously presented): The method of claim 106, where said administration is by a route selected from the group consisting of oral administration, nasal administration, rectal administration, intraperitoneal injection, intravascular injection, subcutaneous injection, transcutaneous administration, and intramuscular injection.

Claim 108 (Original): The method of claim 106, wherein said polypeptide is administered in combination with an all L-form of the same polypeptide.

Claim 109 (Original): The method of claim 106, wherein said polypeptide is provided as a unit formulation in a pharmaceutically acceptable excipient.

Claim 110 (Original): The method of claim 106, wherein said acute phase response is an inflammatory response associated with a recurrent inflammatory disease.

Claim 111 (Previously presented): The method of claim 107, wherein said acute phase response is associated with a disease selected from the group consisting of leprosy, tuberculosis, systemic lupus

erythematosis, polymyalgia rheumatica, polyarteritis nodosa, scleroderma, idiopathic pulmonary fibrosis, chronic obstructive pulmonary disease, coronary calcification, calcific aortic stenosis, osteoporosis, and rheumatoid arthritis.

Claim 112 (Original): The method of claim 106, wherein said acute phase response is an inflammatory response associated with a condition selected from the group consisting of a bacterial infection, a viral infection, a fungal infection, an organ transplant, a wound, an implanted prosthesis, parasitic infection, sepsis, endotoxic shock syndrome, and biofilm formation.

Claim 113 (Previously presented): A method of mitigating or preventing a coronary complication associated with an acute phase response to an inflammation in a mammal, said method comprising:

assaying said mammal for an acute phase protein (APP) level indicative of an acute phase response or a significant risk of an acute phase response; and

administering to a mammal showing an acute phase protein (APP) level indicative of an acute phase response a polypeptide of any one of claims 1, and 8-26.

Claim 114 (Previously presented): The method of claim 113, wherein said acute phase protein (APP) is a positive APR selected from the group consisting of serum amyloid A, c-reactive protein, serum amyloid P component, C2 complement protein, C3 complement protein, C4 complement protein, C5 complement protein, C9 complement protein, B complement protein, C1 inhibitor, C4 binding protein, fibrinogen, von Willebrand factor, α 1-antitrypsin, α 1-antichymotrypsin, α 2 antiplasmin, heparin cofactor II, plasminogen activator inhibitor I, haptoglobin, haemopexin, ceruloplasmin, manganese superoxide dismutase, α 1-acid glycoprotein, haeme oxygenase, mannose binding protein, leukocyte protein I, lipoprotein (a), and lipopolysaccharide binding protein.

Claim 115 (Previously presented): The method of claim 113, wherein said acute phase protein (APP) is a negative APR selected from the group consisting of albumin, prealbumin, transferrin, apoA1, apoAII, α 2-HS glycoprotein, inter- α -trypsin inhibitor, and histidine-rich glycoprotein.

Claim 116 (New): The polypeptide of claim 1, wherein the amino acid sequence of said peptide is DQYYLRVTVA, (SEQ ID NO:18).

Claim 117 (New): The composition of claim 34, wherein the amino acid sequence of said peptide is DQYYLRVTTVA, (SEQ ID NO:18).

Claim 118 (New): The pharmaceutical composition of claim 49, wherein the amino acid sequence of said peptide is DQYYLRVTTVA, (SEQ ID NO:18).

Claim 119 (New): The method of claim 55, wherein the amino acid sequence of said peptide is DQYYLRVTTVA, (SEQ ID NO:18).

Claim 120 (New): The method of claim 90, wherein the amino acid sequence of said peptide is DQYYLRVTTVA, (SEQ ID NO:18).